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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/975,219 | 10/11/2001 | Ferdinand S. Signey | TI-27954 | 7795 |

23494 7590 06/12/2003

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EXAMINER

WINDMULLER, JOHN

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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3724

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

N.K

Office Action Summary

Application No.

09/975,219

Applicant(s)

SIGNEY ET AL.

Examiner

John Windmuller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to a method for cutting integrated circuit packages, classified in class 83, subclass 53.
 - II. Claim 14-20, drawn to a computer operated system for cutting an integrated circuit package, classified in class 438, subclass 460.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case (1) applies. The method for cutting integrated packages of invention I could be practiced by a system that does not include a computer.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Michael Skraehot on 5/16/03 a provisional election was made without traverse to prosecute the invention of method for cutting integrated circuit packages, claims 1-13. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 14-20 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-9, 12, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Drussel et al. Drussel et al. teach, inter alia, cutting a plurality (Fig. 5, claim 11) of integrated circuit packages (abstract; col. 4, lines 27-42) that are ball grid array packages (col. 7, lines 16-17) with a water jet (col. 8, line 54) into a predetermined or desired shape (Fig. 1, 22), such that an interior portion is accessible for testing (col. 7 line 66 to col. 8 line 13; Figs. 4A-4C, edges 56, 57).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drussel et al. in view of Hashish et al. The device of Drussel et al. discloses the invention as claimed except a water jet having abrasive particles used for cutting. However, Hashish et al. teach a water jet having abrasive particles used for cutting (abstract; col. 1, lines 24-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with abrasive particles as taught by Hashish et al. for improved cutting.

9. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drussel et al. in view of Romanini. The device of Drussel et al. discloses the invention as claimed except pressurizing the cutting water jet to a pressure between approximately 500 psi and approximately 2500 psi. However, Romanini teaches pressurizing a cutting water jet to a pressure between approximately 500 psi and approximately 2500 psi (col. 1, lines 18 to 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with a pressure between approximately 500 psi and approximately 2500 psi as taught by Romanini for optimum cutting.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with a pressure between

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approximately 500 psi and approximately 2500 psi, since the general condition of a cutting water jet, which by nature is pressurized, is disclosed by Drussel et al. and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges, in this case pressures, involves only routine skill in the art. *In re Aller*, 105 USPQ 233.


Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Batdorf (abrasive in liquid jet, col. 2, lines 46-57), Mains Jr. (abrasive ice particles in water jet, abstract), Distefano et al. (cutting ball grid array package, col. 1 line 18, with water saw, col. 11 line 67).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Windmuller whose telephone number is 703 305-4988. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703 308-1082. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9302 for regular communications and 703 308-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1148.

jw 
June 6, 2003


Allan N. Shoap
Supervisory Patent Examiner
Group 3700